



Law Offices  
**Jacobson Holman**  
 Professional Limited Liability Company  
 400 Seventh Street, N.W.  
 Washington, D.C. 20004-2218

(202) 638-6666  
 (202) 393-5350/51/52 (fax)  
 www.jhip.com  
 Firm e-mail: ip@jhip.com

December 9, 2003

## PATENT APPLICATION TRANSMITTAL

### Mail Stop PATENT APPLICATION

Commissioner for Patents  
 PO Box 1450  
 Alexandria, VA 22313-1450

**Name(s) of Inventor(s):** Robert R. STEUER  
 David A. BELL  
 David R. MILLER

**Title of the Invention:** SENSOR FOR TRANSCUTANEOUS MEASUREMENT OF  
 VASCULAR ACCESS BLOOD FLOW

This Application's **Attorney Docket Number:** P65684US3

### This is a Request under 37 CFR § 1.53(b) for filing:

- ☐ an Original Patent Application (*not* a continuing application).  
☒ a Continuation Application of:  
☐ a Divisional Application of:  
☐ a Continuation-In-Part ("CIP") application of:

prior ("*first parent*") application:

App. No. 09/750,076  
 Filed on: December 29, 2000  
 Entitled: SENSOR FOR TRANSCUTANEOUS MEASUREMENT OF VASCULAR ACCESS  
 BLOOD FLOW

Prior application examiner: David McCrosky  
 Prior application Group Art Unit: 3736

U.S. Patent Application Transmittal  
Page 2

☒

This application is *also* a:

☐

continuation

☐

divisional

☒

continuation-in-part

of "*second parent*" application:

App. No. 09/879,192

Filed on: June 13, 2001

Entitled: SYSTEM FOR NONINVASIVE HEMATOCRIT MONITORING

☒

This second parent application is a:

☒

continuation

☐

divisional

☐

continuation-in-part

of "*first grandparent*" application:

App. No. 09/084,958

Filed on: May 28, 1998 (now U.S. patent No. 6,266,546)

Entitled: SYSTEM FOR NONINVASIVE HEMATOCRIT MONITORING

☒

The first grandparent application is a:

☒

continuation

☐

divisional

☐

continuation-in-part

of "*great-grandparent*" application:

App. No. 08/479,352

Filed on: June 7, 1995 (now U.S. patent No. 5,803,908)

Entitled: SYSTEM FOR NONINVASIVE HEMATOCRIT MONITORING

☒

The great-grandparent application is a:

☒

continuation

☐

divisional

☐

continuation-in-part

of "*great-great-grandparent*" application:

App. No. 08/317,726

Filed on: October 4, 1994 (now U.S. patent No. 5,499,627)

Entitled: SYSTEM FOR NONINVASIVE HEMATOCRIT MONITORING

U.S. Patent Application Transmittal  
Page 3

☒ The great-great-grandparent application is a:  
☐ continuation ☒ divisional ☐ continuation-in-part  
of "**great-great-great-grandparent**" application:

App. No. 08/011,882  
Filed on: February 1, 1993 (now U.S. patent No. 5,372,136)  
Entitled: SYSTEM AND METHOD FOR NONINVASIVE HEMATOCRIT MONITORING

☒ The great-great-great-grandparent application is a:  
☒ continuation ☐ divisional ☐ continuation-in-part  
of "**great-great-great-great-grandparent**" application:

App. No. 07/598,169  
Filed on: October 16, 1990  
Entitled: SYSTEM FOR NONINVASIVE HEMATOCRIT MONITORING

☒ This application is *also* a:  
☐ continuation ☐ divisional ☒ continuation-in-part  
of "**third parent**" application:

App. No. 09/771,596  
Filed on: January 30, 2001  
Entitled: METHOD AND APPARATUS FOR NON-INVASIVE BLOOD CONSTITUENT  
MONITORING

☒ The third parent application is a:  
☒ continuation ☐ divisional ☐ continuation-in-part  
of "**second grandparent**" application:

App. No. 09/244,756  
Filed on: February 5, 1999 (now U.S. patent No. 6,181,958)  
Entitled: METHOD AND APPARATUS FOR NON-INVASIVE BLOOD CONSTITUENT  
MONITORING

U.S. Patent Application Transmittal  
Page 4

☒ The second grandparent application claims the benefit of

Provisional App. No. 60/073,784

Filed on: February 5, 1998

Entitled: METHOD AND APPARATUS FOR NON-INVASIVE HEMATOCRIT MONITORING

☒ Enclosed are:

39 pages of text (including specification, claims, abstract)

7 claims

22 sheets of drawings

0 computer-readable copies of nucleotide and/or amino acid sequence listings

0 paper copies of nucleotide and/or amino acid sequence listings

0 statement verifying identity of computer-readable and paper sequence listings

0 computer program in microfiche appendix

☐ *For Continuations and Divisionals only:* This application is filed by fewer than all inventors named in the prior application. **DELETE THE FOLLOWING INVENTOR(S)** named in the prior application:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☒ *For Continuations and Divisionals Only:* Enclosed is a true copy of the prior application as originally filed, including: specification (including claims), drawings, oath or declaration showing the signature or an indication it was signed, and amendments referred to in the oath or declaration filed to complete the prior application. None of the amendments referred to in the oath or declaration filed to complete the prior application introduced new matter. The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied, is considered as being part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference therein.

**The Total Filing Fee is calculated as follows:**

☒ Applicant claims small entity status.

U.S. Patent Application Transmittal  
Page 5

☒ Enter the enclosed Preliminary Amendment prior to calculating the filing fee.

(Col 1)		(Col 2)		SMALL ENTITY		NON-SMALL ENTITY	
	NUMBER OF CLAIMS PRESENTED		NUMBER OF EXTRA CLAIMS	RATE	FEE	OR	RATE
TOTAL	1	minus 20	0	x9=	\$ 0		x18=
INDEP	1	minus 3	1	x42=	\$ 0		x84=
BASE FILING FEE:				+385=	\$ 385		+770=
_ Multiple Dependent Claims				+140=	\$ 0		+280=
				TOTAL	\$ 385	OR	TOTAL
							0

☒ Credit Card Payment Form including the above TOTAL filing fee is enclosed.

☐ Check number \_\_\_\_\_ including the above TOTAL filing fee is enclosed.

☐ An original executed Declaration is enclosed.

☐ This application is filed under Rule 53(f). No Declaration and no filing fee are enclosed. An executed Declaration will be submitted at a later date, with a check for the above filing fee and a surcharge under 37 CFR § 1.16(e). Except for the filing fee, the Commissioner is authorized **throughout the pendency of the application** to charge any fee deficiency under 37 CFR §§ 1.16 or 1.17, or credit any overpayment, to our Deposit Account No. 06-1358.

☒ *For Continuations and Divisionals only:* If extensions of time under 37 CFR § 1.136 other than those provided herewith are required to prevent abandonment of the parent application, then such extensions of time are hereby petitioned to allow co-pendency of the parent and the present continuing application. The Commissioner is hereby authorized to charge any fee deficiency under 37 CFR § 1.17, or credit any overpayment, to Deposit Account No. 06-1358.

☐ Assignment document(s) is/are submitted herewith, with check number xxx including the recordation fee of \$40.00 per Assignment.

U.S. Patent Application Transmittal  
Page 6

☐ Foreign priority is claimed under 35 U.S.C. § 119 from:

\_\_\_ Application No. \_\_\_ filed \_\_\_.

\_\_\_ Application No. \_\_\_ filed \_\_\_.

\_\_\_ Application No. \_\_\_ filed \_\_\_.

The certified priority paper(s):

☐

was/were filed in the parent case;

☐

is/are enclosed herewith;

☐

will be submitted at a later date.

☒ Also enclosed for appropriate processing are the following:  
Information Disclosure Statement

☒ The Commissioner is hereby authorized to charge any fee deficiency under 37 CFR §§ 1.16 and 1.17, or credit any overpayment, during the entire pendency of the application to Deposit Account No. 06-1358.

☒ Recognize the practitioners associated with **CUSTOMER NUMBER 00,136** and HARVEY B. JACOBSON, JR. (Reg. No. 20,851); JOHN CLARKE HOLMAN (Reg. No. 22,769); ALLEN S. MELSER (Reg. No. 27,215); MICHAEL R. SLOBASKY (Reg. No. 26,421); JONATHAN L. SCHERER (Reg. No. 29,851); IRWIN M. AISENBERG (Reg. No. 19,007); WILLIAM E. PLAYER (Reg. No. 31,409); MICHAEL G. VARGA (39,410); YOON S. HAM (Reg. No. 45,307); LINDA J. SHAPIRO (Reg. No. 28,264); SUZIN C. BAILEY (Reg. No. 40,495); JOSEPH G. CONTRERA (44,628); MARVIN R. STERN (Reg. No. 20,640); and NATHANIEL A. HUMPHRIES (Reg. No. 22,772) as having **POWER OF ATTORNEY** to prosecute this application, to make alterations and amendments, and to transact all related business before the U.S. Patent and Trademark Office.

☒ Ensure that the **CORRESPONDENCE ADDRESS** is the address associated with **CUSTOMER NUMBER 00,136**.

☒ Ensure that the **FEE ADDRESS** is the address of **CUSTOMER NUMBER 00,136**.

# Jacobson Holman PLLC

## U.S. Patent Application Transmittal Page 7


Prompt processing of the enclosed is respectfully requested.

Respectfully submitted,

JACOBSON HOLMAN PLLC

Date: December 9, 2003

Customer No. 00,136  
400 Seventh Street, N.W.  
Washington, D.C. 20004  
(202) 638-6666

By:   
Linda J. Shapiro  
Registration No. 28,264